25X1
Declassified in Part - Sanitized Copy Approved for Release 2012/10/02 : CIA-RDP78B05702A000100100006-2

Page Denied

Declassified in Part - Sanitized Copy Approved for Release 2012/10/02 : CIA-RDP78B05702A000100100006-2

Declassified in Part - Sanitized Copy Approved for Release 2012/10/02 : CIA-RDP78B05702A000100100006-2

TOP SECRET

[redacted] 25X1

Copy 16 of 24 copies
16 October 1961

MEMORANDUM FOR: TALENT Control Officers
(See Distribution)

SUBJECT: Camera Information for Mission 9025, KH-3 System

1. The following technical information necessary for the reduction of quantitative data obtained from photography of Mission 9025 is forwarded for your information.

a. This photography involves the use of three cameras: a main camera, a port horizon camera, and a starboard horizon camera.

b. Operational Focal Lengths

(1) Main lens - 609.666 mm
(2) Port horizon lens - 88.8 mm
(3) Starboard horizon lens - 88.95 mm

Definition: "Operational focal length" is defined as the distance from the main lens nodal point to the film surface as measured on the lens bench, and the data reduced for a vacuum condition. (Operational focal length corrected for environment)

c. Lens Distortion

(1) Main Lens (Pincushion)

At 357° - .057 mm
At 357.5° - .033 mm
At 358° - .018 mm
At 359° - .002 mm
At 0° - .000 mm
At 1° - .000 mm
At 2° - .010 mm
At 2.5° - .025 mm
At 3° - .048 mm

(2) Port Horizon Lens

Radial 10° - .004 mm
20° - .035 mm
Tangential - .011 mm (Max)

[redacted] 25X1

TOP SECRET [redacted] 25X1

Declassified in Part - Sanitized Copy Approved for Release 2012/10/02 : CIA-RDP78B05702A000100100006-2

Declassified in Part - Sanitized Copy Approved for Release 2012/10/02 : CIA-RDP78B05702A000100100006-2

(3) Starboard Horizon Lens

Radial - 10° - .004 mm
20° - .036 mm
Tangential - .010 mm (Max)

d. Depression Angle of Horizon Cameras Relative to Nominal Main Camera

(1) Port Camera - 15° 37' 48"
(2) Starboard Camera - 14° 42' 20"

e. Image Motion Compensation

Ramp information	Begin	End
Cycle period	3.85 Sec	7.73
Scan velocity (in/sec)	39.1 in/sec	55.2 in/sec
IMC velocity (in/sec)	.53 in/sec	.74 in/sec

f. Filter and Exposure Data

(1) Main lens - Filter, Wratten 21
Aperture, F/3.5
Exposure, 1/300 second
Slit width, 0.2 inches

(2) Horizon lens - Filter, Wratten 25A
Aperture, F/6.8
Exposure, 1/100 second

g. Resolution Capabilities

(1) Main lens - 168 l/mm
Average measured on SO-132 Film

(2) Port horizon lens - 35 l/mm
Average measured on Super XX film

(3) Starboard horizon lens - 37 l/mm
Average measured on Super XX film

h. Timing Marks

Timing marks will not appear on Mission 9025.

i. Film Data

Film used on Mission 9025 was SO-132.

25X1
25X1

[redacted]
Executive Director
National Photographic Interpretation Center

Declassified in Part - Sanitized Copy Approved for Release 2012/10/02 : CIA-RDP78B05702A000100100006-2

Declassified in Part - Sanitized Copy Approved for Release 2012/10/02 : CIA-RDP78B05702A000100100006-2

TOP SECRET

[redacted] 25X1

Distribution:
Copy 1 & 2 - TCO/USAF (AFIC)
3 & 4 - TCO/USAF (ACIC)
5 & 6 - TCO/USAF (SAC)
7 & 8 - TCO/USAF (ATIC)
9 &10 - TCO/USA (AMS)
11 &12 - TCO/USN (NAVPIC)
13 &14 - [redacted] 25X1
15 &16 - DIR/NPIC
17 - AFCIN 1/B2
18 - SIO, Army Det.,NPIC
19 - SIO, Navy Det.,NPIC
20 - SIO, AF Det., NPIC
21 - SIO, CIA Det.,NPIC
22 - IO/TID/NPIC
23 &24 - TCO/NPIC (1-FS/SB)

TID/NPIC [redacted] 16 Oct 61 25X1

[redacted] 25X1

TOP SECRET

Declassified in Part - Sanitized Copy Approved for Release 2012/10/02 : CIA-RDP78B05702A000100100006-2